L Number	Hits	Search Text	DB	Time stamp
1	36	ss7 same database with memory	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/04/12 07:58
2	19	(ss7 same database with memory) and @ad<19981020	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/04/12 08:19
3	103	(log near1 file) same database with memory	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/04/12 08:19
4	0	ss7 same ((log near1 file) same database with memory)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/04/12 08:19
5	7	ss7 and ((log near1 file) same database with memory)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/04/12 08:19

US-PAT-NO: 6317733

DOCUMENT-IDENTIFIER: US 6317733 B1

TITLE: Event recording in a service database system

DATE-ISSUED: November 13, 2001

INVENTOR-INFORMATION:

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US-CL-CURRENT: 707/1

ABSTRACT:

The invention relates to a method of handling the event recordings in a service database system. The database comprises measurement tables (MT) which
include consecutive rows (Ri). A single row comprises data about a single measurement object. In order to be able to share the processor load evenly (a) the counters on the measurement table row have been duplicated, and in every recording interval the counter values of a given counter group on said row are incremented, and the counter values of another counter group on the same row are recorded according to a predefined rotation principle, and (b) the recording and zeroing process of the counters is started during each recording interval repeatedly at short intervals, and during each startup the processing is performed on a limited portion of the measurement objects included in the measurement group.

10 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

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Brief Summary Text - BSTX (10):

The physical level architecture of the intelligent network describes how the functional entities described above are located in the physical entities of the network. The physical architecture of the intelligent network is illustrated in FIG. 2 where the physical entities are described as rectangles or circles and functional entities as ovals. The signalling connections are described by dashed lines and the actual transport which is, for example, speech, by continuous lines. The optional functional entities are marked by dashed line. The signalling network shown in the Figure is a network according to **SS7** (Signalling System Number 7 is a well-known signalling system described in the CCITT (nowadays ITU-T) blue book Specifications of Signalling System No. 7, Melbourne 1988).

Brief Summary Text - BSTX (20):

The service adjunct AD is functionally equivalent to the service control point SCP, but the AD is directly connected to SSP with a fast data connection (for example, with an ISDN 30B+D connection) instead of via the common channel
signalling network **SS7**.

Brief Summary Text - BSTX (32):

Furthermore, it would be preferable to put the same processor to handle the service processing, the functions related to recording the events (incrementing the counters), and the recording of counter values for several different measurement groups. The recording of counter values refers to the operation where the counter values are retrieved at regular intervals so that they can be written in the memory (**log file**) or sent to an outside system for processing. In practice, the use of one processor may be the only option. The reason for this is that often the service requests include stringent response time requirements in which case the **database** must be implemented in RAM **memory** (not
on disk). It is not even possible in all commercial computer systems to have more than one processor accessing a single RAM memory. RAM memory shared by
several processors is also difficult to implement because overlapping memory operations must be prevented.